

### AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 23, line 11 with the following paragraph:

Novel genes in the sequence of clone 178D12 were predicted *in silico* with Genscan (24) and Fgenes software. Predicted genes were confirmed by sequencing RT-PCR products. *DYXC1* cDNA has been deposited in GenBank with accession number AF337549. Mouse *mDYXC1* was constructed from two overlapping EST sequences (accession numbers BG242087 and AK005832) and verified by comparing it to all available mouse *mDYXC1* EST sequences. cDNA sequences of *mDYXC1* and *hDYXC1* were aligned with ClustalX. The alignment was improved manually, and shaded with BOXSHADE. The secondary structure of the TA rich region was predicted with MFOLD (available at <http://bioinfo.math.rpi.edu/~mfold/dna/form1.cgi>) with default parameters. The expression of *DYXC1* was analyzed by RT-PCR from Clontech's multiple tissue cDNA panels 1 and 2. RT-PCR was performed in 25 µl volume in the following conditions: 94°C 2' (94°C 1', 68°C 2') x 30, 1 x DyNAzyme buffer with MgCl<sub>2</sub> (Finnzymes, Espoo, Finland), 0.2 u DyNAzyme II polymerase (Finnzymes), 15 pmol forward primer GTTGACAGAATGCTGTTCCACGTCG (SEQ ID NO:11), 15 pmol reverse primer CAAGCTGAGGCACGAAGAGCAATGA (SEQ ID NO:12). Promoter region of *DYXC1* was predicted with TSSG and TSSW software at Baylor College of Medicine, available at <http://searchlauncher.bcm.tmc.edu/seq-search/gene-search.html> the Baylor College of Medicine website, and neural network promoter prediction (NNPP) software at University of California, Berkeley, available at [http://www.fruitfly.org/seq\\_tools/promoter.html](http://www.fruitfly.org/seq_tools/promoter.html) the University of California, Berkeley website. The genomic sequences of nonhuman primates corresponding to

all exons were determined by direct sequencing after PCR amplification with human-specific intronic primers (primer sequences are listed in Table 3).

Please replace the paragraph beginning at page 23, line 1 with the following paragraph:

**Table 3.** Human-specific intronic primers for DYXC1 (SEQ ID NOS: 22-42).

| Primer Name | Primer Sequence             | Primer Length | Product Length | Exon    | <u>SEQ ID NO:</u> |
|-------------|-----------------------------|---------------|----------------|---------|-------------------|
| EKN1-1F     | AACAGACTGCCTGGTGCTCT        | 20            | 268 bp         | exon 1  | <u>22</u>         |
| EKN1-1R     | CACACCAAAGTTTGAGAACCACT     | 23            |                |         | <u>23</u>         |
| EKN1-2.1R   | AAGATGAGCCTGTTGCTCGT        | 20            | 476 bp         | exon 2  | <u>24</u>         |
| EKN1-2.1F   | CAAGCAGAGGGTATGGGTCTAC      | 22            |                |         | <u>25</u>         |
| EKN1-2R     | AGAAGCTTCGGACCACACC         | 19            | 431 bp         | exon 2  | <u>26</u>         |
| EKN1-3F     | CGCGTGCTTAATTTGTGTAA        | 20            | 299 bp         | exon 3  | <u>27</u>         |
| EKN1-3R     | TCCCCTACACAATATAGGTGCTT     | 23            |                |         | <u>28</u>         |
| EKN1-4F     | AAAGAAATCTCATCCTGGGTCA      | 22            | 327 bp         | exon 4  | <u>29</u>         |
| EKN1-4R     | GAAAATGCTGAGGAAGTCCAG       | 21            |                |         | <u>30</u>         |
| EKN1-5F     | CAATGGCAAGAGTTTAGAGGTATG    | 24            | 456 bp         | exon 5  | <u>31</u>         |
| EKN1-5R     | TCAATGTGCCAAAACAGTAACC      | 22            |                |         | <u>32</u>         |
| EKN1-6F     | TGTTTAGGATTTGGGGGTGA        | 20            | 395 bp         | exon 6  | <u>33</u>         |
| EKN1-6R     | GGAAATTCTAAAACATATTCATGACG  | 26            |                |         | <u>34</u>         |
| EKN1-7F     | CCACTGGAGGAAGATGGAAA        | 20            | 244 bp         | exon 7  | <u>35</u>         |
| EKN1-7R     | TGTCTTCATACATGATAAAGCTCAT   | 25            |                |         | <u>36</u>         |
| EKN1-8F     | GGTAAGCCATCCTCTTTGTCA       | 21            | 337 bp         | exon 8  | <u>37</u>         |
| EKN1-8R     | TCAACTGAACAGAAAAAGATCATCA   | 25            |                |         | <u>38</u>         |
| EKN1-9F     | CTCCCCAAGTGTTGGGATTA        | 20            | 305 bp         | exon 9  | <u>39</u>         |
| EKN1-9R     | TGGAGTCCTTAAAAGTCACGA       | 21            |                |         | <u>40</u>         |
| EKN1-10F    | GGTACTTGTTCTGAACCATGCTACTA  | 26            | 502 bp         | exon 10 | <u>41</u>         |
| 126403-F    | CAAGGGCAAGCTTAATTCAGTAACACA | 27            |                |         | <u>42</u>         |